

## ABSTRACT

A wireless repeater for receiving, amplifying and transmitting one or more wireless signals. The repeater comprises a signal processing device for determining one or more attributes of a wireless signal received from a base transceiver station and a memory for storing a reference list that includes a list of one or more preferred frequency bandwidths to be received, amplified and transmitted. The repeater further comprises a controller coupled with the signal processing device for comparing the one or more attributes of the wireless signal from the base transceiver station with the reference list, where the controller selects a first active set of one or more frequency bandwidths from the preferred frequency bandwidths based on the comparison.

The repeater still further includes a first reception filter, where the first reception filter, in response to control signal(s) from the controller, filters out signals, communicated to the first reception filter, that have frequencies outside the first active set of frequency bandwidths.